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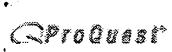
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Subjects: Studies, Profitability, Measurement, Financial institutions, Disadvantages, Advantages, Activity based costing

Locations:

Author(s): Karr, John

US

Publication title: Bank Accounting & Finance, Boston: Fall 1994. Vol. 8, Iss. 1; pg. 30

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### Abstract (Article Summary)

The ways financial services companies, such as banks, are using activity-based costing (ABC) are explored. Why banks are turning to ABC is described, and the technical underpinnings of ABC are explained. An insurance company can use ABC to better understand the profitability of its products, while a provider of institutional trust services can use ABC to determine which activities were most responsible for its cost structure. A commercial bank can use ABC to improve its organizational profitability reporting and to help it better determine product costs. Financial services firms that implement ABC generally encounter similar issues and problems, such as level of detail, data sources, refreshing the ABC calculations, and discomfort with the process view.

Full Text (3157 words)

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Banks, insurance companies, and securities firms across the country are learning how to employ activity-based costing (ABC). ABC is one of a number of management tools and techniques that originated in the manufacturing sector and are being increasingly adopted by the financial services industry. Like other manufacturing-originated tools and techniques, such as business process improvement and total quality management, ABC is being tailored to meet the special needs of financial services firms.

This article explores the ways financial services companies, such as banks, are using ABC. It describes why banks are turning to ABC, explains the technical underpinnings of ABC, shows how it differs from traditional costing methods, and gives some examples of the ways ABC can be used. It discusses implications for management and common implementation problems.

ABC Helps Answer Bank Costing Problems

Banks are adopting ABC for two primary and related reasons: the need to better understand and manage costs and the desire to improve profitability analysis and reporting. While banks also aim to improve pricing and investment decision making, these objectives generally are secondary. Bank managers view ABC as a valuable new mechanism to help address the major cost issues with which they have wrestled, somewhat unsatisfactorily, over the past decade.

While the readers of Bank Accounting & Finance are no doubt familiar with the twin objectives of cost management and profitability reporting, a brief recap of their importance to bank management and the weaknesses of traditional costing approaches can help set the stage for a more thorough understanding of the benefits of ABC.

### **Cost Management**

The pressures on bank profitability caused by credit problems, disintermediation, and heightened global competition are familiar. In response, banks large and small have undertaken cost-reduction programs. Yet noninterest expense at U.S. commercial banks has continued to rise, at a compounded annual average growth rate of 6.2% for 1986 to 1992, well in excess of the general rate of inflation.

Further, despite the industry's recently improved profitability, bank executives are seeking to exert more control over costs. Recent profits were in large measure due to interest spreads and securities gains taken, which were quite high relative to historical levels. If these trend back to normal levels and if loan demand continues to be anemic, then banks will need to contain costs to produce acceptable earnings.

Beyond managing overall cost levels, many banks also seek to understand how costs are generated in order to improve profitability measurement. Banks want to develop a full and accurate picture of which costs are fixed and which are variable, identify which parts of the bank consume cost, and determine how costs attach themselves to their product and service offerings. In addition, many banks seek to determine the costs of processes, beyond traditional organizational and product views of cost. Bankers without such information find themselves at a competitive disadvantage when it comes to pricing, distribution, outsourcing, and expansion decision making.

### Profitability Measurement

In the past decade, two interrelated changes have placed new demands on bank cost accounting. The first has been the adoption of shareholder value concepts and the related need to show risk-adjusted return on equity as a principal measure of performance. The second has been the desire to disaggregate the bank and measure profitability along multiple dimensions.

The adoption of a profit scorecard based on risk-adjusted return on equity, usually organized along lines of business, requires banks to develop more sophisticated and accurate methods of allocating costs across units. Further, banks need methods to assign so-called overhead costs that generally had been allocated in seemingly arbitrary or excessively subjective manners.

At the same time, banks must understand the profitability of products and services (such as corporate trust or home equity loans), markets (such as geographic regions), segments (such as middle-market corporations or high-net-worth individuals), customers, and distribution channels (such as branches). Moreover, they want to see that the bases for profitability measurement along multiple dimensions are consistent. That is, revenue assignment, funds transfer pricing, and cost-attribution methods should be the same across various cuts of the bank. This requires more sophisticated and powerful costing tools than banks used in the past.

### **ABC Differs from Traditional Cost Accounting**

The essence of the difference between ABC and traditional methods of cost accounting is that ABC better portrays the underlying economics of the business, by capturing more costs and associating them with products, customers, or organizations in a more accurate way.

As so astutely pointed out by Johnson and Kaplan in their landmark book Relevance Lost,(1) traditional cost accounting methods and systems are of little value—and perhaps become dangerous—as the proportion of total cost related to overhead increases. Calculating profitability only on a direct-cost basis ignores the large overhead burden and distorts the performance picture.

Moreover, using direct cost to decide how to assign overhead costs to products or customers is just as capricious. Instead, all costs should be captured and related to their ultimate consumers. Manufacturing firms adopted ABC to improve their approach to cost information. Banks and other financial firms can do so, too.

As its name implies, ABC identifies costs that are associated with business activities. Rather than use financial accounting line items and organizational allocations as the basis for cost assignment, it employs processes and drivers as its underpinnings, even for overhead costs. In the ABC framework, activities—not products or customers—consume cost. Determining the cost of business processes is an important element of ABC.

Another important difference between ABC and traditional methods is that ABC techniques can provide consistent views of cost along multiple cuts of the bank. The bank can aggregate costs however it wishes, for example, by organization, product, or customer. Total cost will sum to the same number in each view. This contrasts with traditional methods that allocate costs down organizational or product hierarchies or across customers. Summing costs one way, such as by product, usually leads to different results than if they are aggregated another way, such as by customer.

### How Does ABC Work?

ABC takes line-item cost inputs and assigns them first to cost pools, which are activity-related groups of costs. The bank can define the pools broadly—for example, marketing, processing, and collection—or narrowly—for example, dividend payment, redemption, and securities purchase. The bank then attributes activity-pooled costs to cost objects, such as products or customers, using economic drivers, for example, by using transaction counts. Overhead costs go through the same process of activity pooling and assignment based on drivers.

In contrast, traditional allocation methods take line-item direct-cost inputs and assign them to organizational units or products. For example, salaries and benefits, occupancy, travel, and entertainment are attributed to the unit in which they are incurred and the

products that the unit supports. Costs are allocated across organizational units based on some volume indicator, such as assets, number of loans, or square footage. Overhead costs are usually assigned in proportion to direct costs, starting at high levels of organizational aggregation and allocated to successively lower levels.

Of course, the actual mechanics of ABC are more complex than this summary suggests. To identify and assign costs using ABC, 18 banks must take the following steps:

\*Book financial transactions to appropriate accounts.

\*Aggregate into line items (cost elements) by cost center.

\*Map to activity-based process cost pools.

\*Determine cost driver and assign costs.

\*Drive pool costs to cost objects.

Book financial transactions to appropriate accounts. To support any allocation method, expenses must be accounted for properly, that is, they must be booked into the bank's financial systems using the correct account codes. In many banks, much more improper problems takes place than is generally suspected. A key step in ABC analysis is to see that such problems are cleaned up before cost allocation.

Aggregate into line items (cost elements) by cost center. The raw expense data, resident in the general ledger or subledgers, are usually too voluminous to use in allocation. Therefore, the bank should aggregate the individual account balances to a higher line-item level, for example, salaries and benefits, occupancy, or travel and entertainment. The line items (sometimes called cost elements), must be organized by cost center, another accounting classification. Cost centers are hierarchical in nature, with the highest level being the bankwide consolidation and the lowest typically being the base budget responsibility center. ABC typically uses a low cost center as a starting point for allocation but one usually above the lowest responsibility center. For example, the full student loan marketing department might be used rather than the direct mail, telemarketing, or advertising units that comprise it.

For purposes of ABC, cost centers can be one of two types: centers that are internal support units (category I)—for example, human resources and planning—or those that perform activities directly related to serving external customers (category II)—for example, a 2/ regional middle-market lending group.

It takes careful analysis to separate support centers from customer-oriented centers. Banks often confuse their definitions of overhead and operating units with true support and customer-related units. In fact, many units defined as overhead perform activities directly related to providing products or services for customers. For example, some banks call their loan review groups overhead, but these activities can be directly related to serving customers.

Map to activity-based process cost pools. A critical element of ABC is the mapping of cost center information to cost pools. Cost pools are process-based, or activity-based, aggregations of costs. Examples of cost pools could be loan marketing, loan servicing, and loan workout. Based on analyses of the cost center's activities and the processes they support, the bank assigns costs to pools. By doing so, management can see how much cost activities and processes consume, which can be a novel and useful way of considering costs.

Determine cost driver and assign costs. ABC uses economic drivers to allocate costs. For each pool, the bank identifies a driver that relates pool costs to the ultimate cost object (described below). The driver is the causal force behind the cost pool. For example, loan marketing costs could be driven by the number of customer calls made or the number of loan proposals developed. Loan servicing costs could be driven by the number of active and inactive accounts. Drivers are usually transaction based.

Drive pool costs to cost objects. Cost objects are the components of the bank to which costs are ultimately allocated. Typical cost objects are products, customers, accounts, or organizational units. To drive costs to objects, internal support units' (category I) costs are allocated to customer-oriented units (category II). Then, category II costs are related to cost objects using the drivers determined in the previous step.

Using the relationship between the driver and objects, the bank allocates pool costs. For example, if the driver for certain pool costs is the number of accounts, then the cost can be expressed on a per-account basis. Per-account costs can then be summed by product, using the account-to-product relationship; by customer, using the account-to-customer relationship; or by organizational unit, using the account-to-organization relationship.

Complications can arise in driving costs to objects. For example, the link between driver and object may be difficult to determine.

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How can the cost per new sales call be attributed to specific products or customers? Solving this generally requires establishing additional objects such as new customers or using rules of thumb to allocate such costs among existing objects.

Another complication can be that all transactions within a given class of driver do not consume an equal amount of costs. This is often encountered where one type of account entails more work than others, yet the bank's systems treat all accounts equally. To address such issues, the bank can develop cost-weighting mechanisms. For example, high-balance accounts could receive some multiple of the cost attributed to low-balance accounts.

### Case Example: Allocating Payroll Expenses

Exhibit 1 shows the way the costs of a hypothetical support unit would be allocated using ABC. (Exhibit 1 omitted) The cost center's expenses are booked to the proper accounts and aggregated by line item. The payroll unit's direct expenses (such as salaries/benefits and occupancy) total \$72,000 for the period. In addition, the payroll unit receives expenses from other support units upstream in the cost-allocation flow. In the hypothetical example, the payroll unit receives usage-based charges from other support units totaling \$9,000. Therefore, expenses for the unit for the period total \$81,000.

In the next step, the costs are mapped to process cost pools. Our hypothetical payroll unit performs two processes: payroll processing and investigation. Eighty percent of the unit's total costs (\$64,800) are related to performing payroll processing; 20% of total costs (\$16,200) are related to investigations. (This type of analysis usually involves examining the composition of the unit's day-to-day activities and identifying the costs associated with each significant process.)

The next step is to determine the cost driver for each process. The cost driver can be thought of as the operational or economic event that generates the process costs. In the payroll unit, the cost driver for payroll processing is the production of payroll checks. (2) The total volume is 10,000 checks, so that the cost per check in this example is \$6.48 (payroll check production process costs total \$64,800). Similarly, the driver for the investigation process is the number of inquiries that must be investigated. The number of inquiries is 150, so the cost per inquiry is \$108 (investigation process costs total \$16,200).

Once the per-unit and per-inquiry costs are assigned, they are driven to the cost object. For support units, cost objects are other organizational units that use their services. For example, legal department costs can be driven to other units, such as loan workout and human resources. In Exhibit 1, payroll costs would be driven to the other parts of the bank based on the number of checks and inquiries they generate. (Exhibit 1 omitted)

To prevent an endless circular stream of allocations to and from support units, the bank should impose a hierarchy so that support costs are driven downstream but never upstream. That is, support units cannot pass costs to other support units above them in the hierarchy. This hierarchy does not imply any judgment about the relative value of the services provided by the units. Instead, it is a simplifying mechanism to streamline the cost-driving process.

Support unit (category I) costs are driven to external-customer-oriented units (category II). There, they are combined with the unit's direct expenses and carried through to ultimate cost objects (Exhibit 2). (Exhibit 2 omitted) The cost pool mapping, cost driver determination, and object costing steps shown in Exhibit 2 follow the same logic as in the payroll unit example.

These examples show one approach to ABC, but there are more sophisticated variants. For example, the analyst could identify process costs as fixed or variable. The fixed and variable components could be carried through the rest of the ABC flow. Or, the analyst could identify the costs associated with excess capacity and attribute them to cost objects using ABC principles. AB is flexible enough to allow for numerous features in its design.

### Some Implications of ABC

A wide variety of financial institutions use ABC. Banks, securities firms, investment companies, and insurance companies are using ABC tools and techniques. They have found that a better understanding of costs has broad ramifications. Some examples follow.

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An insurance company used ABC to better understand the profitability of its products. The ABC exercises yielded a surprising picture of which products were profitable and which were not. The company revised products and dropped some product lines where price or volume increases were not feasible.

A provider of institutional trust services used ABC to determine which activities were most responsible or its cost structure. As volume went up, costs went up disproportionately, rather than providing the economies of scale that management had anticipated. ABC helped to identify excessive tailoring and customization of incremental business as a key cause. As a result, the company changed its approach to contract design. Moreover, ABC identified some business processes that involved substantial amounts of non-value-adding activities. This led to process redesign.

A commercial bank used ABC to improve its organizational profitability reporting. A substantial volume of expense, previously

thought of as pure overhead, was more accurately attributed to organizational units. While the improvement in accuracy was salutary, the new picture of organizational profitability threatened to change long-standing compensation relationships. This required rethinking the bank's incentive and reward structure.

Another bank employed ABC to help it better determine product costs. The bank discovered that its internal costs for some activities were significantly higher than the prices at which vendors would supply them. As a result, the bank embarked on an aggressive outsourcing drive, which examined almost every support function that could be provided by external suppliers.

Common Pitfalls with ABC

Financial services firms that implement ABC generally encounter similar issues and problems.

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Level of detail. Because ABC is such a powerful tool and it often promises such a pronounced improvement over existing costallocation methods, organizations tend to design it at an overly low level of detail. Process pools, drivers, and objects proliferate as managers demand successively finer cuts at costs and profitability. Besides increasing the expense of the analysis, too much detail makes system maintenance quite costly. Therefore, banks must strike a balance between the desire or detail and the benefits and costs of providing it.

Data sources. While much cost data is resident in banks' financial systems, the data are not generally adequate for ABC purposes. This is particularly true for cost drivers, which are often operational in nature and may not be captured by existing systems. Typically, some sort of work around can be necessary until the bank reaches a more efficient systems solution.

Refreshing the ABC calculations. A bank's initial assignment of cost elements to pools and then to cost objects is based on point-intime or historical performance. Over time, cost relationships can change. For example, a cost center may increase its support of loan
marketing and decrease its support of loan setup. Therefore, the algorithms built into the ABC system must be refreshed
periodically, with frequency depending upon the pace of internal change at the bank and the cost of new analyses.

Discomfort with the process view. Using business processes as a way to identify and attribute cost is new to most banks. Many managers prefer to see costs shown in traditional, line-item format. While ABC can show line-item costs for organizational, product, and customer profitability reporting, adding the process dimension is one of its most powerful features. Bankers should not ignore it, even if they are initially uncomfortable using it.

### Notes

- 1. Johnson, H. Thomas and Kaplan, Robert S., Relevance Lost (Boston: Harvard Business School Press, 1987).
- 2. If payroll processing involved two separate types of activities—hard copy check production and ACH transactions —then the basic process definitions might include Payroll Processing-Check and Payroll Processing—ACH, each with its own process cost profile.

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